STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

April 7, 1982

Mr. John E. Hardaway
Tosco Development Corporation
1600 Broadway, Suite 1400
Denver, Colorado 80202

RE: Review of Sand Wash
Development Mine Project
ACT/047/001
Uintah County, Utah

Dear John:

The Division of Oil, Gas and Mining has completed a review of the Tosco Sand Wash Development Shaft and Mine Project. There were a number of areas identified which need further clarification before completing the permit for this project. Please find enclosed is a list describing these concerns.

The Division of State History submitted the enclosed comments in February 1982. We are forwarding them for your information.

It is our intent to resolve as many of these concerns as possible prior to issuing a tentative approval notice.

If you have any questions about these comments or if you would care to discuss them further, either prior to or with Tosco's written response, please contact Sally Kefer of my staff.

Sincerely,

JAMES W. SMITH, JR.
COORDINATOR OF MINED
LAND DEVELOPMENT

Enclosure

cc: John Blake, State Lands

JWS/SK:btb

TOSCO PERMIT REVIEW

M-3(1)(b)

The route of the proposed Mountain Fuel pipeline should be submitted to the Division when finalized.

M-3(2)(a)

Tosco should provide a narrative on how the mining of oil shale will affect the recovery of gilsonite which exists on the property.

M-3(1)(d)

The Division requests that a copy of the water quality data for the sample from the Upper Bird's Nest Aquifer be submitted as soon as available (page 29, Permit Application).

M-3(2)

The applicant gave a wide range as the percent cover for vegetation. The applicant should chose a specific standard for revegetation success which should be chosen and justified by data collected on site. Will the entire area be reseeded in the same manner? There are three different habitat types in the area. Will areas currently labeled nonvegetated be reclaimed?

M-10

The soil for the water retention pond embankment and that to be utilized as floor "liner" material is identified as impermeable. From where will this material be obtained? What are the characteristics which render it impermeable? (page 56, Permit Application)

The applicant should specify the velocity control measures to be utilized on the retention pond inlet areas.

The Division understands the following to be true for the drainage control plan:

A 15 ac-ft capacity mine water retention pond will be constructed and operated for the treatment of runoff from the coarse ore stockpile, shaft construction muck drainage and an area northeast of the topsoil stockpile. The pond size is based on a maximum ground water flow of 560 gpm/day with an approximate six-day detention capacity. Tosco will grout off as much flow as possible depending on the success of such an effort. Water from the pond will be evaporated although there will be an emergency discharge spillway provided which safely passes the peak flow of the 100-year event. Although it is to be used as an evaporation pond

initially, at some point in the future, Tosco may begin reinjection of the water in the retention pond into the Bird's Nest Aquifer. A sediment pond will be constructed and operated for all other disturbed area runoff. If the chemical characteristics of the coarse ore runoff prove to be similar to natural surface flows, then such runoff will be routed through the sediment pond and discharged.

Some concerns of the Division regarding the drainage control plan which should be addressed, include:

If reinjection of water from the retention pond is planned, can Tosco assure that the quality is not degraded by the muck drainage and coarse ore runoff prior to reinjection? What effect will the detention time have on the TSS quality of water to be reinjected?

M-3(2)(c)

The topsoil storage area should be bermed rather than drained through surface ditches into the sediment pond to prevent excessive topsoil loss. The material which accumulates in the sediment pond should be analyzed to prove it does not adversely affect revegetation potential prior to mixing with the topsoil stockpile. Otherwise, it should be stored separately, as it is derived from heavy operational areas and may be contaminated with oil and grease. If it is so contaminated, how will the operator dispose of it?

M-3(1)(l)

It is unclear to the reviewer as to the total area to be disturbed within the permit area as the acreage provided for each facility mentioned does not total 39.1 acres. Will 26 acres be reclaimed or 39? Soil removal is proposed from 16 acres. A materials balance which includes the area to be disturbed, volume of soil removed and volume to be returned would clarify this situation.

M-3(1)(h)

The applicant should specify the location of the monitoring point "downstream and near the mouth of North Wash." Is it on North Wash or on the White River?

M-10

The new two mile access road will be constructed and maintained for future access to leases. Why was soil removal not proposed for this road?

It is stated on page 51 of the application that most of the 28,000 cubic yards of soil to be stored in a 2.1 acre area will come from two complexes. The applicant states in Section 3.1 that some CaC soil will be removed. How will Tosco decide on where and how much of this soil will be removed? What does an "exchangeable sodium content" of 15 for the CaC imply? Is this an ESP, SAR or percentage of CEC analysis? Initial indications lead the reviewer to believe this soil will be a hinderance to the establishment of vegetation or contaminate other stored soils. How will this material be stored? Similarly, some removal of the BS complex is proposed along the drainage channel. Will the volume removed be stored in the 2.1 acre area? Is there adequate storage room in the 2.1 acre area?

Will topsoil be removed just prior to Phase IV in the coarse ore stockpile area? If so, how will storage and revegetation measures coincide with those of Phase I in order to minimize disturbance?

The applicant has committed to establishing vegetation on the topsoil stockpile. Will temporary methods be employed in the interim to prevent erosion?

Section 2.3.4 indicates the depth of the AkC and EkD complexes to be 20 and 12 inches, respectively. In Section 5.3.1, the applicant states that the depth of soils to be saved range between 2 and 12 inches. Please clarify.

M-3(2)(c)

How will grubbed vegetation be disposed of?

M-10(6)

Have the waste rock and muck materials been analyzed for toxicity to assure safety in surface disposal?

M-10-12

The revegetation species list in the MR 2 Form and Table 5.3-1 are not the same. Please clarify the discrepancies.

The applicant gave two different mulching rates, please clarify. The application of straw often tends to decrease the nitrogen levels in soils. Has any effort been directed toward compensating such a loss? The hydroseeding rate provided was 30 lbs acre. Is this in Pure Live Seed (PLS)? The drilled rate should be about one half of this value.

Tosco may want to propose test plots on the coarse ore stockpile or use data from the Colorado test plots to show revegetation potential.

M-3(2)(f)

A specific timetable for reclamation has not been included in the plan and should be included as a checklist against bond costs.

M-10(2)(c)

Tosco should provide a commitment to the plugging of drill holes and final reclamation of monitor station areas.

M-10-12

In the MR 2 checklist, the applicant states that the coarse ore will be covered with suitable plant growth material and revegetated to achieve maximum stability (comment 38). However, in Section 5.2.1, no mention is made of covering the coarse ore prior to revegetation. Please clarify.

M-3(2)(c)

Applicant should further describe the measures to be incurred on those pads where waste rock and muck are utilized to assure longterm stability of the material.

1115T.

SCOTT M. MATHESON
GOVERNOR

STATE OF UTAH
DEPARTMENT OF COMMUNITY AND
ECONOMIC DEVELOPMENT

Division of
State History
(UTAH STATE HISTORICAL SOCIETY)

MELVIN T. SMITH, DIRECTOR
300 RIO GRANDE
SALT LAKE CITY, UTAH 84101
TELEPHONE 801/533-5755

February 10, 1982

Mr. Jim Smith
Division of Oil, Gas, & Mining
1588 West North Temple
Salt Lake City, Utah 84116

Attention: Sally Keefer

Re: Sand Wash Development Shaft and Mine Project, Tosco Development

Dear Jim:

The staff of the Utah State Historic Preservation Officer has received the State Action form for Sand Wash Development Shaft and Mine Project, Tosco Development.

After review of the state's cultural resource file, there have been located a total of five cultural resources in the northwest corner of Section 35. Our office cannot determine from the information presented whether or not these cultural resources may be in the project area.

If further information is needed concerning these sites, our office would be happy to furnish it to you and consult with you on the Division of Oil, Gas, and Mining's determination of eligibility and effect.

If you have any questions or concerns, contact Jim Dykman at 533-7039.

Sincerely,

for Melvin T. Smith
Director and
State Historic Preservation Officer

JLD:lo E835/2007c